NOTES

An attempt has been recently made to supply a great desideratum for naturalists residing in or visiting London, in a reading-room, in a central situation, where they may consult recent publications and current periodical literature, English and foreign. The Linnean Society has taken advantage of the excellent accommodation now afforded it in Burlington House, Piccadilly, to utilise its council-room for this object when not required for the purposes of the Society. The room is open from ten to six (or four on Saturdays) to Fellows of the Society and others properly introduced, and several tables are well supplied with the newest literature in the two branches of Biology, and others are furnished with accommodation for writing, &c. It is also in immediate proximity to the very fine library of standard works in natural history possessed by the Society, where the librarian is always in attendance. If we might make a suggestion to the Council of the Society for the further development of this very useful movement, it would be that means should be taken for a more prompt and regular supply of some of the leading foreign scientific journals, as, for instance, the *Comptes Rendus* of the French Academy, in which respect the reading-room of the Linnean Society still contrasts unfavourably with that of the Royal College of Surgeons; but the longer hours are a great advantage. The room ought to become the recognised *rendezvous* for naturalists in London.

The Royal Horticultural Society has awarded Mr. Worthington G. Smith its Gold Banksian Medal for his discovery in connection with the potato disease which we recorded last week. We refer our readers to an article by Mr. Smith on the subject in this week's Nature.

Dr. R. B. Walker, F.R.G.S., is on his way home from Gaboon (where he has resided for the last ten years) with the view of publishing his "Twenty-five years experience in Equatorial Africa." Extensively engaged in commerce and geographical research, and having visited all the principal colonies and stations on the West Coast, his contributions to our knowledge of the fauna and flora, anthropology, dialects, and natural products of commerce, ought to be valuable and certainly more trustworthy than those of transient visitors.

The International Geographical Exhibition at Paris, which was opened on the 15th inst., promises to be a decided success. An immense number of visitors have already passed through the galleries, although several nations have not yet completed their preparations, and the annexes on the Terrace du bord de l'eau are far from being ready. The objects exhibited are classed into seven groups. Group 1 has to do with geographical mathematics, geodesy and topography, and the instruments pertaining to them. Group 2 deals with hydrography and maritime geography. Group 3 embraces physical geography, general meteorology, general geology, botanical and geological geography, and general anthropology. Group 4 is rich in ancient treatises, printed and in manuscript, on geographical subjects; fantastically-designed old maps, old instruments, ethnographic collections, and geographical dictionaries. Group 5 is devoted to statistics and to social, political, and agricultural economy. Group 6 has to deal with the teaching and diffusion of geography; and Group 7 with explorations, scientific and commercial voyages, and tours in search of the picturesque. The following are some of the objects which have proved most attractive to the public:—In the Salle des Etats, where the general meeting will be held, is the map of France constructed by the staff. This map is about sixty feet high by forty wide, and many people look at it with telescopes from a distance in order to find the details which interest them. In the English section is a large map of the polar regions, showing the route which the English expedition is to follow; also a large map of the Anglo-Indian Empire, the collection of the proceedings of the Royal Geographical Society and the magnificent instruments employed by the Indian Trigonometrical Survey. The American section, in a remote part of the building, is notable for the admirable collection of the maps of the U.S. Signal Office, and the physical atlas constructed by the venerable Prof. Henry. In the Russian department are exhibited the jewels of the Khan of Khiva; a large map of Asia showing the itineraries of 150 Russian explorers who have travelled in that part of the world during the last twenty years; specimens of the map of the frontier between Russia and China; specimens of the topographical maps drawn by officers during the last Khivan expedition; a map of the Oxus, showing the old tract of the stream when it sent its waters into the Caspian as well as into the Aral Sea; a magnificent map of the Aral Sea, and a collection of geodetical and meteorological instruments. In the French section an attractive object is the complete French station used in observing the Transit of Venus at Saint Paul by Mouchez, with several specimens of photographs of the transit. There is expected from Sweden a meteorite so large that it will have to be placed outside in the Terrace du bord de l'eau; also an artificial representation of the aurora borealis, which is likely to prove of great interest. Dr. A. B. Meyer will exhibit a manuscript map of his explorations in New Guinea. This will doubtless be of great interest to geographers, as it is the first map of that region which goes into detail.

We learn from the *Scotsman* that a meeting of the General Committee appointed in Glasgow to make the necessary arrangements for the meeting of the British Association to be held at Glasgow next year, was held on Wednesday week. A letter from the assistant-secretary of the Association to Sir William Thomson was read by Prof. Young, and in the course of it the name of Prof. Sir R. Christison, of Edinburgh, was mentioned as president-elect.

The Paris Academy of Sciences on Monday last elected Capt. Mouchez to fill the place in the Section of Astronomy vacated by the death of the late M. Mathieu. The contest was unusually severe, every member of the Academy having taken part in the vote. Capt. Mouchez obtained 33 votes, and M. Wolf 26; one vote was given to M. Tisserand, the Director or the Toulouse Observatory.

General regret will be felt at the death,—which took place on Sunday,—of Lady Franklin, at the age of 83 years. Jane Griffin, for such was her maiden name, was married to the great and unfortunate Arctic explorer on Nov. 5, 1828, and accompanied him almost constantly in the fulfilment of his duties until his departure on his last Arctic voyage of discovery in 1845. She has naturally ever since taken the deepest interest in Arctic exploration, and has herself directly done much to forward it by fitting out expeditions either entirely or partly at her own expense. It was she who sent out the *Fox* which in 1857–9, under Sir Leopold M'Clintock, did important service in Arctic exploration and in the discovery of the records and relics of the unfortunate Franklin expedition. That her interest in Arctic enterprise was strong to the very last is shown by the fact that she helped to equip the *Pandora* which so recently left our shores to attempt the N. W. passage under Captain Allen Young. For her services in this direction she received on the return of the *Fox* the Gold Medal of the Royal Geographical Society; she was the first woman on whom it was conferred, the only other one who obtained such a distinction being the late Mrs. Somerville. Until within the last few years, when incapacitated by old age and illness, Lady Franklin was herself an almost constant traveller; she had made a voyage round the world and visited many of the principal places in Europe, North and South America, Asia, and Australasia. She was, as might be surmised, a woman of superior intelligence, clear-sightedness, and great determination; her name will no doubt live alongside of that of her renowned husband.

From a circular letter of M. Leverrier to the Presidents of the Meteorological Commissions of the Departments of France, we learn that the "Atlas Météorologique" for the years 1872 and 1873 is in the press, and that concerted action of several departments by regions is, if slowly, yet gradually being inaugurated in different directions, particularly in the valleys of the Seine, Gironde, Rhône, and Meuse, and the Mediterranean sea-board. M. Fron resumes the discussion of thunderstorms, and M. Belgrand undertakes that of the rainfall.

In connection with the recent disastrous inundation of the Garonne, the following heights, above low-water, of the floods of that river from 1804, as given by M. W. de Fonvielle in the *Bulletin Hebdomadaire* of the Scientific Association of France, Nos. 400 and 402, will be interesting:—July 1804, 21·7 feet; August 1809, 11·8 feet; May 1810, 21·8 feet; April 1812, 12·5 feet; June 1813, 17·8 feet; May 1815, 17·6 feet; April 1816, 16·7 feet; February 1817, 16·7 feet; November 1819, 10·9 feet; March 1821, 15·4 feet; May 1824, 16·4 feet; October 1826, 18·9 feet; May 1827, 23·3 feet; May 1830, 11·5 feet; October 1833, 17.4 feet; May 1835, 24·6 feet; March and April 1836, 13·1 feet; February 1839, 15·4 feet; April 1842, 17·1 feet; June 1845, 19·4 feet; February 1850, 18·4 feet; June 1853, 16·7 feet; June 1854, 18·0 feet; June 1855, 23·6 feet; and on the 24th June, 1875, 26·2 feet, the last being thus a foot and a half higher than any flood that has occurred in this valley during the past seventy-one years, and 3·3 feet higher than the historic flood of 1772.

Petermann's *Mittheilungen* for July contain a map of Asia Minor, which by means of different colours shows the various levels of that region in metres. The map is, moreover, a useful one for general purposes, and is accompanied by a descriptive article by Freiherr v. Schweizer-Lerchenfeld.

The same number of this Journal contains the continuation of Dr. Chavanne's valuable paper on the condition of the ice in the polar seas and the periodical changes to which it is subject. This paper is the result of a minute and careful examination of the reports of the most trustworthy observers, and contains two valuable tables, one showing the normal value of the winter and summer temperatures in fifteen of the principal polar basins, and the other the variation from the normal mean temperatures in summer and winter of the same basins for the period 1800–74. The paper is accompanied by a graphic chart illustrative of these tables, and also showing the secular variation in the condition of the ice in the Dwina at Archangelsk from 1734 to 1854, in connection with the secular variations in intensity of the Aurora Borealis from 1722 to 1870.

Petermann's journal for August will contain a valuable paper by Dr. G. Nachtigal, giving a historical and descriptive account of the new Egyptian province, Dar Fur, and a brief sketch of the traveller's journey from Kuka to Khartoum. A map of the region referred to will accompany the paper, showing not only Nachtigal's route, but those of Von Heuglin and Schweinfurth.

In connection with the Arctic papers of the Geographical Society, we recently referred to speculations on the condition of the interior of Greenland. The August number of the *Mittheilungen* will contain a paper by Dr. Rink on this subject, and on the possibility of crossing Greenland. The following are his principal conclusions:—1. The so-called interior ice is probably only a wall or rind, inside which may be found valleys free from snow and ice, and possibly even wooded. 2. All Greenland, probably, consists of a number of islands soldered together by the universal ice covering. 3. Most probably in two or three places, where the ice-fjords still disembogue, in earlier times a sound must have extended right across from the west to the east coast. 4. Glaciers and permanent snow are probably on the increase all over the land. 5. Floating icebergs are detached from the land by a sort of fall or downflow of the land-ice glaciers. Dr. Rink thinks that by means of properly constructed sledges drawn by men, and by carefully selecting a route and establishing suitable stations, the Greenland continent might be crossed from coast to coast.

While so much is being done for Arctic exploration, the Germans in recent years have not been neglecting the exploration of the Antarctic seas. In 1873 the German Arctic Society of Hamburg, presided over by Albert Rosenthal, who has contributed so much to the equipment of polar expeditions, sent out an expedition to the south polar region under the command of Capt. Dallmann. Some of the results of this expedition will be found in the recently published expedition of Stieler's "Hand-Atlas," and a few details will be found in the August number of Petermann's *Mittheilungen*, especially with reference to Capt. Dallmann's exploration of Graham Land, discovered by the whaling Captain Biscoe, in 1832. Capt. Dallmann deserves credit for having added considerably to our knowledge of this hitherto little-known land. At the place where Biscoe saw nothing but what appeared a continuous coast line, Dallmann has discovered a strait from fifteen to eighteen nautical miles wide, with highlands between as far as the eye could reach, and an Archipelago of islands of about sixty nautical miles in extent, which has been named after Kaiser Wilhelm. Two other deep bays and many islands have been discovered and named, and will be found on the map already referred to.

The prizes of the French Geographical Society have this year been awarded as follows:—A gold medal to Father Armand David, for his explorations in China and Mongolia; a gold medal to Dr. G. Schweinfurth, for his travels in North Africa; a silver medal to Abbé Émile Petitot, for his exploration of the North American region which extends from Great Slave Lake to the mouth of the Mackenzie; a silver medal each to MM. de Compiègne and Marche for their journey to the Gaboon and up the River Ogové; and the la Roquette gold medal to the family of the late Capt. Hall of the *Polaris* Arctic Expedition.

M. Adrien Germain in the *Bulletin* of the French Geological Society discusses the propriety of having a common meridian for all nations, and comes to the conclusion that the French should decidedly not abandon the meridian of Paris as their first, as it presents all the advantages which a first meridian should have.

Mr. E. W. Prevost has succeeded Mr. Clowes as Science Master at Queenwood College, Stockbridge.

Important changes are contemplated in the organisation of the French National University, as a new law has been adopted by the Assembly allowing, under certain conditions, the opening of free Universities.

With regard to Mr. Barrington's query in last week's Nature (p. 213), relative to the sudden scarcity of blackbirds and thrushes, Mr. G. Lingwood, of Alnwick, writes that in the district where he resides, and with which he is well acquainted, there is no such scarcity. Mr. J. Preston, writing from Belfast, likewise testifies to their superabundance in that neighbourhood.

In an octavo volume of some eight hundred pages, the U.S. Government has recently issued a handbook of the ornithology of the region drained by the Missouri River and its tributaries, entitled "Birds of the North-west, from the pen of Dr. Elliott Coues." There are no illustrations.

WE are glad to see that among the Supplementary Estimates just issued is a re-vote of 1,000*l.* for the Sub-Wealden Exploration.

ON Tuesday, the inaugural meeting of the Royal Archæological Institute took place at Canterbury.

A FINE male Chimpanzee, which has cut its front permanent incisors and its anterior true molars, has just been presented to the Zoological Society by Captain Lees, Governor of Lagos, West Africa.

THE recently issued part of Dr. H. G. Bronn's *Thierreich* contains an account of the lower jaw and the teeth in the different orders of the Mammalia, together with numerous excellent outline drawings of the skulls of the same groups.

MESSRS. LONGMANS are preparing for publication, in three volumes, copiously illustrated, a treatise on galvanism and electro-magnetism, by Prof. Gurtav Wiedemann, translated from the second German edition, with the author's sanction and co-operation, by G. Carey Foster, F.R.S., Professor of Physics in University College, London.

THE same publishers will issue in the autumn, a text-book of Telegraphy, by W. H. Preece, C.E., and J. Sivewright, M.A., forming one of their series of "Text-books of Science."

AMONG the works Mr. John Murray will publish during the ensuing season, the following will probably be found of interest to our readers :—"Habits and Movements of Climbing Plants," by Charles Darwin, F.R.S.—"Eastern Seas, Coasts, and Harbours," being the cruise of H.M.S. *Dwarf* in China, Japan, Formosa, and Russian Tartary from the Corea to the River Amur, by Commander B. W. Bax, R.N. This book will be illustrated by a map and engravings.—"A School Manual of Modern Geography," edited by Dr. William Smith.—"A Popular Account of Dr. Livingstone's Second Expedition to Africa ; the Zambezi, Lakes Shirwa and Nyassa, with illustrations."—A new edition, being the twelfth, of Sir Charles Lyell's "Elements of Geology," in two octavo volumes ; and "A Natural History of Mammals, including Man," by Prof. St. George Mivart, F.R.S., forming the first part of an introduction to Zoology and Biology.

IN yesterday's *Times* will be found an extremely interesting account from Australia of a Frenchman, Narcisse Pierre Peltier, of about thirty years of age, who has been living for seventeen years among the savages of Night Island, off the north-east coast of Queensland, in lat. 13° 10′ S., long. 143° 35′ E. He was left on the island by some shipwrecked sailors when twelve years old, was treated kindly by the savages, and soon became identified with them in every respect. He is recovering rapidly the use of his mother-tongue both in speaking, reading, and writing, though he still retains some marked characteristics of savage life. He has given much information concerning the ribe among whom he lived so long ; their language does not seem to have anything in common with the Malay or with any of the Papuan dialects. If judiciously treated, Narcisse might be made to yield valuable material to the anthropologist.

THE additions to the Zoological Society's Gardens during the past week include two Suricates (*Suricata zenik*) from South Africa, presented by Mr. F. Ward ; two Golden Eagles (*Aquila chrysaëtos*) from Scotland, presented by Lord Lilford ; a Chinese Water Deer (*Hydropotes inermis*) from China, a Sumatran Rhinoceros (*Rhinoceros sumatrensis*) from Malacca, two Scarlet Ibises (*Ibis rubra*), a West India Rail (*Aramides cayennensis*), a Common Boa (*Boa constrictor*), a Tuberculated Lizard (*Iguana tuberculata*) from South America, deposited ; three Spotted Tinamous (*Nothura maculosa*) from Buenos Ayres, and two Guiana Partridges (*Odontophorus guianensis*) from Guiana, received from Southampton ; a Black-billed Sheathbill (*Chionis minor*) from the Kerguelen Island, purchased ; a Collared Fruit Bat (*Cynonycteris collaris*), born in the Gardens.

SCIENTIFIC SERIALS

THE *Quarterly Journal of Microscopic Science* may, at the present time, be looked upon as the representative of the most modern phase of biological thought. The current number contains articles of much more than ordinary importance. The first is by Mr. F. M. Balfour, being "A comparison of the early stages in the Development of Vertebrates." The plate which accompanies the memoir is coloured in a particularly instructive manner, which illustrates the ultimate destination of the different elements of the cellular layers of the blastoderm. Mr. Balfour's observations are in favour of the blastopore becoming neither the mouth nor the anus of the adult animal, but of its cicatrix being a weak spot at which one or the other may subsequently be more easily formed than elsewhere. The gap between the observed structure of the developing amphibian and selachian is made more simple by the introduction of a hypothetical intermediate form in which the segmentation cavity is represented as if "it were sunk down so as to be completely within the *lower layer cells*," a condition not quite easy to comprehend. Many other very important theoretical points are discussed in this particularly interesting paper.—The second paper is a reprint from the Privy Council Reports, of Dr. Klein's observations on the pathology of sheep-pox.—Mr. W. H. Jackson describes and figures a new Peritrichous Infusorian, named *Cyclochaeta spongilla*, found in a sponge from the river Chirwell.—Mr. A. A. W. Hubrecht of Leyden makes "some remarks about the minute anatomy of Mediterranean Nemertcans," including notes on the dermal tissues, nervous system, &c., of species of *Meckelia*, *Polia*, *Lineus*, *Ommatoplea*, and *Drepanophorus* (n.g.)—Prof. Lankester publishes in full his observations read before the Linnean Society, "On some points in the structure of Amphioxus, and their bearing on the morphology of vertebrata." The exact homology of the atrial chamber and of the perivisceral cavity in the Lancelet has been a fruitful source of discussion, and Prof. Lankester's study of the question throws considerable additional light on the subject. The conclusions to which his investigations lead are "first that the peritoneal cavity of the vertebrate is the same thing as the coelom of the worm and of Amphioxus ; second, that the earlier vertebrate ancestors (represented in a degenerate form by Amphioxus) developed epipleura, which coalesced in the median line postorally to form an atrium ; third, that whilst Amphioxus retains this atrium in functional activity, the other vertebrata have lost it by *the coalescence* of its outer and inner bounding wall, respectively epipleura and somatopleura ; fourth, that whilst the indications of the earlier historical steps of this process are suppressed in all craniate vertebrata at present investigated, yet the Elasmobranchs do continue to present to us an ontogenetic phase in which the somatopleura and the epipleura are widely separated ; thus enclosing between them an epicoel (the atrium of amphioxus)."—Mr. F. R. Lewis writes on Nematode Haematozoa in the dog, closely allied to *Filaria sanguinolenta*, found in the walls of the aorta. These are figured, as are the parts of *Amphiporous spectabilis* and other Nemerteans, described by Dr. M'Intosh in considerable detail. —There is an admirable paper by Prof. Thiselton Dyer, containing a review of the various modes of sexual reproduction known among Thallophytes, with a sketch of the classification of that section of Cryptogams—including Algæ, Lichens, Fungi, and Characeæ—recently proposed by Prof. Sachs.

SOCIETIES AND ACADEMIES

LONDON

Geological Society, June 23.[*]—Mr. John Evans, V.P.R.S., president, in the chair.—On the superficial geology of the Central Region of North America, by Mr. G. M. Dawson, Geologist to H.M. North American Boundary Commission.

Physical Geography of the Region.—The region under consideration is that portion of the great tract of prairie of the middle of North America from Mexico to the Arctic Sea, which

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[*] Continued from p. 221.